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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,526	12/03/2003	Raymond K. Orr	79115-26 /pw	3203

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EXAMINER

RUTLAND WALLIS, MICHAEL

ART UNIT	PAPER NUMBER
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2835

DATE MAILED: 08/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/725,526	ORR ET AL.	
	Examiner	Art Unit	
	Michael Rutland-Wallis	2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-11,13-17 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-7,9-11,13-17 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's amendment to cancel claims 8, 12, 18 and 20 render any further discussion to the previous 112 and drawing issues moot. Additionally applicant provides amendments to claim 5 to remove a previously identified clarity issue. Hence presently no objection or 112 issues are presented in the claim listing.

Applicant's arguments with respect to the prior art rejection filed 07/19/2006 have been fully considered but they are not persuasive. Applicant alleges the cited reference Rock, fails to teach "at least one sensor for sensing a parameter of the arrangement for regulating the power supplied to the power distribution network from the plurality of power sources". Applicants arguments is based on the claimed limitation "regulation", wherein applicant contends regulation refers to normal operation, whereas load or supply isolators refers to fault conditions.

The office respectively notes claims are given the broadest reasonable interpretation consistent with the specification however limitations in the specification are not read into the claims. *In re Yamamoto*, 740 F.2d 1569, 222 USPQ 934 (Fed. Cir. 1984)). An attached *Merriam-Webster's Dictionary* definition defines "regulate" as to fix or adjust the time, amount, degree or rate of. As applied in the rejection Rock adjusts the amount. Therefore the limitation regulate is properly anticipated by Rock.

Applicant also allege on page 6 of the remarks Rock fails to suggest, "sensing a voltage at at least one point in the power distribution network". Rock describes both in

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the specification and claims measuring a voltage comparing said voltage measurement to a threshold voltage within the power distribution apparatus see for example claim 5. Measuring a voltage at a point is sufficient to anticipate the limitation of sensing a voltage at a point.

In view of the above the rejection is proper and therefore is maintained.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4, 9, 15-17 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Rock (U.S. Pat. No. 6,121,693)

With respect to claims 1, 9 and 15 Rock teaches a distributed power supply arrangement comprising a plurality of power sources (item 61a-c) for supplying power to a plurality of loads via a power distribution network (item 65, 75 fig 1 or 2), the power sources and the loads being connected to the power distribution network whereby the power sources are coupled to the loads via respective resistances (see Fig. 4 load isolators contains resistors items 100a-100n alternatively simply the line resistance associated with each connected load) of the power distribution network, the arrangement further comprising at least one voltage sensor (item 62a-c supply isolators

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monitor for a threshold voltage see for example claim 5 in column 6 lines 60-65) for sensing voltage at least one point in the power distribution network, wherein each of the power sources is responsive (switched off) to the sensed voltage for supplying a regulated current or a regulated power to the power distribution network.

With respect to claim 2, 17 and 19 Rock teaches a plurality of said voltage sensors (item 62a-c senses the voltage of each supply respectively) for sensing voltages at a plurality of points in the power distribution network.

With respect to claim 4 and 16 Rock teaches the power sources comprise regulated current sources, as the supply isolators regulate the current and the supplies of Rock are output a regulated current to supply the shared loads in order to compensate for power droop.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 5 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rock (U.S. Pat. No. 6,121,693) in view of Murabayashi et al. (U.S. Pat. No. 6,856,047)

With respect to claim 3 and 10 Rock teaches the device of claim 1 and 2 but does not teach the sensing of an average of the sensed voltages for supplying said regulated current or regulated power to the power distribution network. Murabayashi teaches a power distribution system wherein voltage sensing is performed using a voltage average (column 8 line 25-40). It would have been obvious to one of ordinary skill in that art at the time of the invention modify Rock to sense an average voltage in order to insure the detection of a voltage abnormality of the supply or system.

With respect to claim 5 and 11 Rock teaches the power sources are arranged for supplying regulated currents to the power distribution network, Rock teaches at least two types of load connected to the distribution system. It would have been obvious to one of ordinary skill in that art at the time of the invention use different weights to the distribution system in order to power critical or high demand loads and low demand loads.

Claims 6-7 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rock (U.S. Pat. No. 6,121,693) in view of Hayward et al. (U.S. Pat. No. 6,317,345)

With respect to claims 6 and 14 Rock teaches the device of claim 1 and 2 but does not teach the power distribution network comprises power and ground planes of a circuit card on which the loads are provided. Hayward teaches plural power circuits and ground plane circuitry. It would have been obvious to one of ordinary skill in that art at the time of the invention modify Rock to implement the system on claim 1 on a circuit card in order to use the system in a backplane arrangement.

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With respect to claims 7 and 13 Hayward teaches the plurality of power circuits are arranged on the circuit card.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rock (U.S. Pat. No. 6,121,693) in view of Levran et al. (U.S. Pat. No. 5,982,645)

With respect to claim 8 and 12 Rock teaches the device of claim 1 but does not teach the power sources comprise switch mode power converters, the arrangement further including a control unit for controlling the power sources to operate in synchronism with different phases. The use of switch mode power supplies and or converters is well known in that art as seen for example in Levran teaches a similar to the device of claim 1 and further teaches Fig. 1 and 2 depicting 3-phase AC power input and conversion to DC and control circuitry. It would have been obvious to one of ordinary skill in that art at the time of the invention modify Rock to use switch mode converters, control circuitry to synchronize the power to reduce power factor losses.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rock (U.S. Pat. No. 6,121,693) in view of Wantanabe et al. (U.S. Pat. No. 6,373,671)

With respect to claim 18 Rock teaches the device of claim 1 and 2 but does not teach a temperature at a respective point in the power distribution network. Wantanabe teaches a power distribution network capable of detecting temper parameters at a point in the network. It would have been obvious to one of ordinary skill in that art at the time of the invention modify Rock to detect a temperature parameter instead of a voltage parameter in order to assure the supply does not overheat.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rutland-Wallis whose telephone number is 571-272-5921. The examiner can normally be reached on Monday-Thursday 7:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MRW

 **ANATOLY VORTMAN
PRIMARY EXAMINER**

regulate

One entry found for **regulate**.

Main Entry: **reg·u·late** 

Pronunciation: 're-gy&-"lAt also 'rA-

Function: *transitive verb*


Inflected Form(s): **-lat·ed; -lat·ing**


Etymology: Middle English, from Late Latin *regulatus*, past participle of *regulare*, from Latin *regula* rule

1 a : to govern or direct according to rule **b (1)** : to bring under the control of law or constituted authority **(2)** : to make regulations for or concerning <*regulate* the industries of a country>

2 : to bring order, method, or uniformity to <*regulate* one's habits>

3 : to fix or adjust the time, amount, degree, or rate of <*regulate* the pressure of a tire>

- **reg·u·la·tive**  /-"lA-tiv/ *adjective*

- **reg·u·la·to·ry**  /-l&-"tor-E/ *adjective*

